

10/554598

JC20 Rec'd PCT/PTO 27 OCT 2009

**METHOD OF DETERMINING THE FORMATION FACTOR OF AN  
UNDERGROUND RESERVOIR FROM MEASUREMENTS ON DRILL  
CUTTINGS TAKEN THEREFROM**

**ABSTRACT**

Method and device for determining the formation factor of underground zones from drill cuttings. The device comprises a cell (1) associated with a device for measuring the electrical conductivity of the cell with the content thereof. The cell containing the drill cuttings is filled with a first electrolyte solution (A) of known conductivity ( $\sigma_A$ ). After saturation of the drill cuttings by first solution (A), the global electrical conductivity ( $\sigma^*_A$ ) of the cell with the content thereof is determined. After discharging first solution (A), the cell containing the drill cuttings is filled with a second electrolyte solution (B) of known conductivity ( $\sigma_B$ ), and the global electrical conductivity ( $\sigma^*_B$ ) of the cell containing the second solution and the cuttings saturated with the first solution is determined. The cuttings formation factor (FF) is deduced therefrom by combination of the measurements.

Applications: petrophysical characterization of reservoirs.